

### **REMARKS**

These remarks are in response to the Office Action dated August 2, 2006. Claims 1-49 are pending in the application.

In the Office Action, the Examiner has rejected claims 1-13, 16, 17, and 19-47 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pat. No. 4,542,469 ("Brandyberry").

Claims 14, 15, 18, 48 and 49 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The rejections from the Office Action dated August 2, 2006 are discussed below. No new matter has been added. Reconsideration of the application is respectfully requested in light of the following remarks.

#### **I. REJECTIONS UNDER 35 U.S.C. § 103**

##### **A. Claims 1-13, 16, 17, and 19-47**

Claims 1-13, 16, 17, and 19-47 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Brandyberry. The Examiner asserts that the teachings of Brandyberry render Applicants' rejected claims obvious. Applicants respectfully disagree, as Brandyberry neither teaches nor suggests at least one limitation in each of Applicants' independent claims.

The independent claims pending are Claims 1, 21, 36, 41 and 42. Of these claims, originally-presented independent Claims 21, 36 and 41 all require that the display be capable of displaying a "graphical representation" of at least some data on the display. Presently-amended independent Claims 1 and 42 also require that the display be capable of displaying a "graphical representation" of at least some data on the display. As explained in greater detail below, Brandyberry neither teaches nor suggests a graphical representation of data, or a display capable of displaying such data, and for at least this reason, independent Claims 1, 21, 36 41 and 42 are allowable.

Applicants' invention is directed to a revenue meter including electronics for measuring the delivery of electrical energy from an energy supplier to a consumer through an electric circuit, a display and a cover. (see, e.g., Applicants' Abstract). The display may be operable to generate information in graphical form. *Id.* The graphical nature of the user interface allows sophisticated information to be presented to the user, which can include

vector diagrams, bar graphs, graphical progress indicators, trend graphs, waveform graphs and histograms. (see, e.g., Applicants' specification at paragraph 101).

In rejecting Applicants' independent Claim 21, which requires, *inter alia*, a "graphical representation of said at least one portion of said display data generated by said second logic," the Examiner has interpreted and rejected the claim as stated in Claims 1 and 9. (see Office Action dated August 2, 2006, at page 6). Regarding dependent Claim 9, the Examiner asserts that while Brandyberry does not specifically recite the display data can comprise a phasor diagram, Brandyberry teaches a display for displaying utility information, and "[o]ne of ordinary skill in the art would readily recognize there is several different ways to represent data (i.e. graphically, numerically and textually)." (see Office Action dated August 2, 2006, at page 4). Further, the Examiner asserts "it would have been obvious to one of ordinary skill in the art to modify the display of the Brandyberry system to display data in a phasor diagram because one of ordinary skill in the art would have the option and knowledge to use any alternative method known in the art." *Id.*

Further, in rejecting Applicants' dependent Claim 8 (from which Claim 9 depends), which requires "wherein said display is operative to display graphics," the Examiner has cited to Brandyberry FIG. 10. (see Office Action dated August 2, 2006, at page 4). However, the definition of "graphics" includes "a graphic representation (as a picture, map, or graph) used especially for illustration" and "a pictorial image displayed on a computer screen." (see Merriam-Webster's Collegiate Dictionary, Eleventh Edition). Applicants' use of the term "graphics" in the specification is consistent with the dictionary definition. Therefore, Applicants respectfully submit that Brandyberry's FIG. 10 does not display "graphics," as recited by Applicants' Claim 8.

In support of the obviousness rejection of dependent Claim 9 (and therefore independent Claim 21), the Examiner cites to Brandyberry col. 12, lines 53-64. (see Office Action dated August 2, 2006, at page 4). This passage describes standard display sequences of the Brandyberry device, referred to as a PDR<sub>TM</sub>, and notes that standard useful information may be generated as illustrated in FIGS. 9 through 26. (see, e.g., Brandyberry col. 12, lines 53-55). As shown in Brandyberry FIGS. 9 through 26, the display consists of a seven-segment display capable of showing up to eight digits. (see, e.g., Brandyberry FIG. 10). Further, the standard display sequences of Brandyberry "have specific annunciators relating to each display sequence, i.e., energy is identified by the 'KWH' annunciator which becomes illuminated during the energy display sequence." (see Brandyberry col. 12, lines 59-64 and

FIGS. 10-14). In addition to the seven-segment display, the Brandyberry display has about a dozen annunciators that can become illuminated. (see, e.g., Brandyberry FIG. 10).

Brandyberry further explains that “[d]uring the ‘segment check’ display sequence (FIG. 10), all digit segments and indicating annunciators are illuminated with the exception of the logo ... The ‘segment check’ display sequence is used to check the operation of the LCD and its associated circuitry. If a segment (any annunciator or digit) is not illuminated during this display sequence, then a problem exists either with PDR<sub>TM</sub>’s central processing unit, the LCD connection, or the LCD itself.” (see Brandyberry col. 13, lines 11-20).

By contrast, Applicants’ invention, as recited in independent Claim 21, teaches “graphical representation of said at least one portion of said display data generated by said second logic.” (see Applicants’ Claim 21). While Brandyberry shows the display of alphanumeric data, it neither teaches nor suggests a “graphical representation” of data. In fact, the terms “graphic” and “graphical” are never used in Brandyberry’s specification. The term “graph” is only used once in an unrelated context, i.e., in the brief description of the drawings section in reference to Figure 6. Since Brandyberry neither teaches nor suggests a graphical representation of data, it cannot render obvious Applicants’ independent Claim 21.

Moreover, it would not have been obvious to modify the device in Brandyberry to display graphical representations of data for various reasons. First, to facilitate display of graphics, it is desirable to provide a grid-based array of display elements. For example, Applicants’ specification describes “[r]eferring now to Figure 13, the revenue meter, represented generally by reference numeral 20, of the disclosed embodiments includes a dot addressable black and white or color display 28 that allows text and graphics to be displayed on the meter’s front panel.” (see, e.g., Applicants’ specification at paragraph 92). The dot addressable black and white or color display 28 of Applicants’ invention is capable of accurately displaying energy-related data in various graphical formats. For example, “any parameter can be part of any number of display screens and can be shown in different formats, be it numerical, as a bar, through a point on a chart or as an angle or length of a vector. Such a vector diagram is illustrated in Figure 16 ... A series of parameters can be shown as a graph or other graphical representation such as a scatter diagram or pie chart.” (see, e.g., Applicants’ specification at paragraph 100). Moreover, “[t]he graphical nature of the user interface allows sophisticated information to be presented to the user. This can include vector diagrams, bar graphs, graphical progress indicators, trend graphs, waveform graphs and histograms.” (see, e.g., Applicants’ specification at paragraph 101).

By contrast, the seven-segment display and illuminating annunciators of Brandyberry are incapable of graphically displaying data because a grid-based array is not provided. The seven-segment display in Brandyberry can only display alphabetical and numerical data, and is substantially incapable of showing segments that are angled or curved. (see, e.g., Brandyberry FIG. 10). In short, while Brandyberry can display up to eight alphanumeric characters, the patent neither teaches nor suggests graphical representation of data.

Next, it would not have been obvious to modify the device in Brandyberry to display graphical representations of data because the graphical representation of data described by Applicants' Claim 21 requires more complex hardware and software than contemplated by Brandyberry. First, in order to substitute the seven-segment display of Brandyberry with a dot addressable display, the circuit board would need to be replaced. Moreover, the appropriate control logic would need to be modified in a manner adapted to display graphical representations of data. For example, Applicants' specification states that "[p]referably, the GUI is programmed using screen templates to provide scaleable fonts and scaleable graphical display objects such as lines, vectors, circles, pie charts, graphs or bar-graphs. This allows for customization of display screens with various numbers of lines, font sizes and graphical objects." (see, e.g., Applicants' specification at paragraph 111). Unlike Applicants' invention of Claim 21, the Brandyberry device is significantly limited by its hardware and software, and therefore is not capable of providing graphical representations of data in the manner shown by Applicants' invention.

Still another reason why it would not have been obvious to modify the device in Brandyberry to display graphical representations of data is because such meters typically are designed for recordation of energy consumption. (see, e.g., Brandyberry Abstract). While such meters record energy, it is not obvious to interpret the data and provide it graphically in different formats to the user at the time of recordation. For example, in recording energy consumption, Brandyberry utilizes an alphanumeric display of data provided with an associated annunciator, e.g., the display shows "3865 kWh." (see, e.g., Brandyberry FIG. 11 and col. 2, line 47). Based on Brandyberry, it would not be obvious to provide a sophisticated graphical representation of the data to the user, e.g., vector diagrams, bar graphs, pie charts and histograms. (see, e.g., Applicants' specification at paragraphs 100-101).

Finally, in addition to having an expanded array of display options, Applicants' device also is capable of displaying data with significantly improved accuracy over the

Brandyberry device. Applicants' dot addressable black and white or color display 28 allows text and graphics to be displayed on the meter's front panel in a manner with improved resolution, and therefore, the charts, graphs, diagrams and histograms displayed may be provided with improved clarity and accuracy, thereby providing the user with more meaningful information. Even assuming, arguendo, that the Brandyberry device could display graphical representations of data, there is no teaching or suggestion of providing such data in a clear, meaningful and accurate format.

In sum, Brandyberry neither teaches nor suggests each and every element of independent Claim 21. Since independent Claim 21 is allowable, dependent claims 22-35 are also in condition for allowance for at least the reasons set forth above.

Originally-presented independent Claim 36 also recites "second logic coupled with said first logic and operative to generate first display data, at least one portion of which is capable of being represented graphically..." and "said display coupled with said second logic and operative to display a graphical representation of said at least one portion of said display data generated by said second logic." (see Applicants' Claim 36). As noted above, Brandyberry neither teaches nor suggests a graphical display or representation of data. Since Brandyberry neither teaches nor suggests each and every element of independent Claim 36, independent Claim 36 is allowable and dependent claims 37-40 are also in condition for allowance for at least the reasons set forth above.

Originally-presented independent Claim 41 also recites "display means coupled with said processing means for displaying graphical representations of said at least one portion of said display data generated by said processing means." (see Applicants' Claim 41). As noted above, Brandyberry neither teaches nor suggests a graphical display or representation of data. Since Brandyberry neither teaches nor suggests each and every element of independent Claim 41, independent Claim 41 is allowable.

Independent Claim 1 has been amended to recite that the second logic coupled with said first logic is "operative to generate first and second display data, at least one portion of which is capable of being represented graphically;" and further that the display is "coupled with said second logic and operative to display graphical representations of at least one of said first display data and said second display data generated by said second logic;" (see

Amended Claim 1). As noted above, Brandyberry neither teaches nor suggests a graphical display or representation of data. Since Brandyberry neither teaches nor suggests each and every element of independent Claim 1, independent Claim 1 is allowable and dependent claims 2-20 are also in condition for allowance for at least the reasons set forth above.

Further, independent Claim 42 has been amended to recite "first and second display data, "at least a portion of which is capable of being represented graphically;" and further recites "display means coupled with said processing means for displaying graphical representations of at least one of said first display data and said second display data;" (see Amended Claim 42). As noted above, Brandyberry neither teaches nor suggests a graphical display or representation of data. Since Brandyberry neither teaches nor suggests each and every element of independent Claim 42, independent Claim 42 is allowable and dependent claims 43-49 are also in condition for allowance for at least the reasons set forth above.

## CONCLUSION

Each of the rejections in the Office Action dated August 2, 2006 has been addressed and no new matter has been added. Applicants submit that all of pending claims 1-49 are in condition for allowance and notice to this effect is respectfully requested. The Examiner is invited to contact the undersigned attorney if such communication would expedite the prosecution of this application.

Respectfully submitted,



Douglas A. Oguss  
Registration No. 48,469  
Attorney for Applicants

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BRINKS HOFER GILSON & LIONE  
P.O. BOX 10395  
CHICAGO, ILLINOIS 60610  
(312) 321-4200